

STATE PLANT BOARD
**THE INSECT PEST SURVEY
BULLETIN**

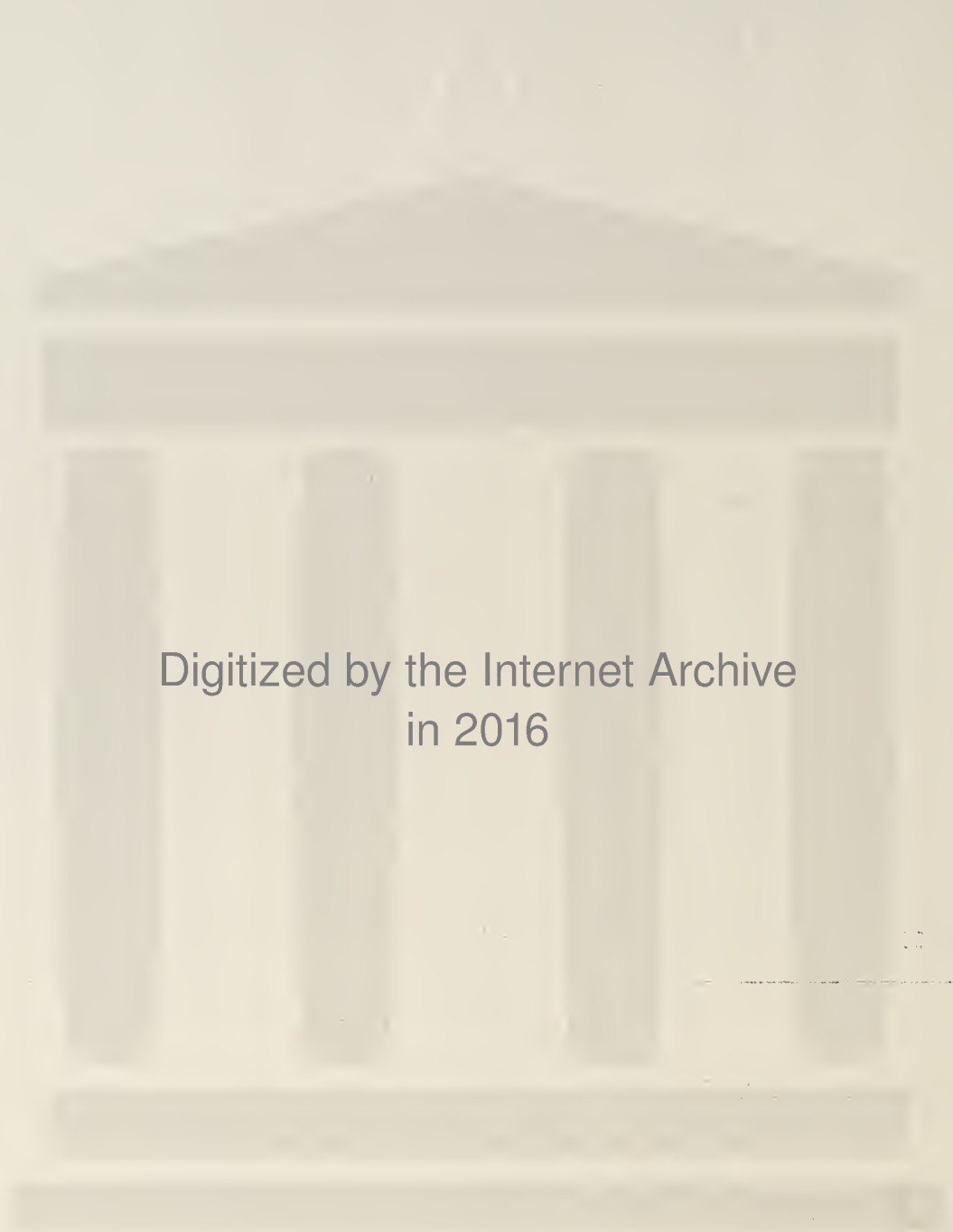
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INSECT PEST SURVEY BULLETIN

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THE MORE IMPORTANT RECORDS FOR MARCH

Probably the most interesting development in the month of March was an outbreak of green bug infesting wheat in Oklahoma.

Mormon cricket eggs were hatching in Oregon during the second week in the month and in Washington during the third week.

Spring surveys indicate that there will be a heavy flight of May beetles in Kentucky this spring. During the last week in March numbers of these beetles were flying in Louisiana. Other States reporting large numbers of grubs are Kansas, Oklahoma, Texas, and Utah.

The sugar-beet wireworm was reported as heavily infesting potatoes in Los Angeles County and watermelon plantings in the San Joaquin Valley, Calif.

Chinch bug is sufficiently numerous in parts of western Indiana to produce moderately heavy infestations. High survival is also reported from Illinois, southeastern Iowa, and parts of Missouri.

The San Jose scale passed the winter, with but little mortality in Georgia, Illinois, and Missouri, and reports of damage were received from Mississippi and Oklahoma.

Codling moth larvae passed the winter successfully in New York, Kentucky, Illinois, and Missouri. In the Cornelia section of Georgia larvae were beginning to pupate during the third week in March.

Eggs of the fruit tree leaf roller are very numerous in western Illinois and eastern Missouri, with indications of heavy infestations this spring.

Aphid eggs are generally abundant on apple in Pennsylvania, Virginia, and Kentucky. Apple grain aphid was hatching early in the month in Kentucky, and rosy apple aphids were observed hatching during the fourth week in the month in Virginia.

Plum curculio began to appear on peach trees at Fort Valley, Ga., on March 6. The first adult of the season was seen at Experiment, Ga., on March 22, at Albany, Ga., March 23, and in Virginia on March 27.

The grape berry moth suffered but little mortality in the Lake grape belt of Ohio.

Unusually heavy infestations of tomatoes by the tomato pinworm occurred late in the month in Manatee County, Fla.

A weevil, Collabismodes cubae Boh., is heavily infesting tomato stems in Dade County, Fla., severely injuring the plants.

Tobacco moth was found overwintering in scrap tobacco spread on land last fall in North Carolina. This is the first record of the larvae of this insect overwintering out of doors.

Cankerworms are being reported generally over the East Central States, westward to Iowa and Nebraska. We have also received reports from Kansas and Oklahoma.

GENERAL FEEDERS

GRASSHOPPERS (*Acrididae*)

Florida. J. R. Watson (March 23): First eggs of the lubberly locust (*Romalea microptera* Beauv.) began hatching in Alachua County on March 14. Now mostly in the second instar and eggs still hatching.

Missouri. L. Haseman (March 10): A high percentage of eggs overwintering in good shape and in those counties where fall egg surveys showed high counts a heavy hatch is expected this summer.

MORMON CRICKET (*Anabrus simplex* Hald.)

Washington. R. A. Roberts (March 24): Mormon crickets hatching on March 21 at Pasco, Franklin County.

Oregon. R. A. Roberts (March 24): Mormon cricket hatching on March 10 at Warm Springs, Jefferson County.

EUROPEAN EARWIG (*Forficula auricularia* L.)

Washington. E. W. Jones (March 18): Overwintered adults began to emerge from soil at Walla Walla during the week ended on March 18.

WHITE GRUBS (*Phyllophaga* spp.)

Kentucky. W. A. Price (March 24): Surveys in the bluegrass region of Kentucky show that a heavy flight of May beetles will occur this spring. Principal species involved are *P. hirticula* Knoch, *P. bipartita* Horn, *P. inversa* Horn, *P. fraterna* Harr., *P. futilis* Lec., *P. fusca* Froel., and *P. tristis* F.

Louisiana. C. O. Eddy (March 27): June beetles observed flying since about March 16 and in much greater numbers since March 24.

Kansas. H. R. Bryson (March 24): White grubs fairly abundant on March 22 and now working their way gradually to the surface of the ground.

Oklahoma. F. A. Fenton (March 24): The outbreak of wheat white grub (*P. lan-ceolata* Say) has apparently subsided; localized infestation being found only near Okeene, Blaine County.

Texas. M. J. Janes (March 24): Observed on February 17 as causing severe damage to strawberries planted on land broken from sod the previous season in Galveston County.

Utah. G. F. Knowlton (March 3): Sugar beet stands severely damaged by white grubs in several fields at Wellington, Carbon County, in 1938.

WIREWORMS (Elateridae)

Kansas. H. R. Bryson (March 24): Aeolus dorsalis Say numerous in a wheatfield south of Junction City. This field has been in wheat year after year.

Washington. E. W. Jones (March 18): Early emergence of males of western field wireworm (Limonius infuscatus Mots.) at Walla Walla on March 11.

California. M. W. Stone (March): In a 20-acre potato field near Artesia, Los Angeles County, an average of 6 sugar-beet wireworm larvae (L. californicus Mann.) recovered per $\frac{1}{5}$ square foot of row, and as many as 19 removed from a single seed piece. Damage in sugar beet plantings near Chino also reported.

A. F. Howland (March 17): Considerable damage to early watermelon plantings under hot caps at Kingsburg, Fresno County, by Limonius sp. Adults very numerous. Usually necessary in this locality for growers to have to replant from one to six times because of damage.

CUTWORMS (Noctuidae)

Kansas. H. R. Bryson (March 24): Little evidence up to March 22 to indicate cutworms as numerous. Recent searches for larvae revealed a scarcity of all species, a significant fact, considering that they were so abundant everywhere last spring.

PLANTBUGS (Lygus spp.)

Utah. G. F. Knowlton and F. C. Harmston (March 24): L. elisus Van D. and L. elisus hesperus Knight active on warm days during the last 3 weeks.

THRIPS (Thysanoptera)

District of Columbia. C. A. Weigel (November 10, 1938): Frankliniella tritici Fitch collected on outdoor roses in Washington. (Det. by F. Andre.)

Florida. J. R. Watson (March 23): Weather over most of State very dry, with the result that many insects characteristic of dry weather have become abundant. Particularly true of thrips. F. cephalica Crawf. was scarce in the Gainesville section until about March 1, but since then it has multiplied rapidly. Extremely abundant on citrus bloom in Polk and other counties.

Louisiana. C. O. Eddy (March 27): Thrips, particularly F. tritici, observed in great numbers on onions, strawberries, shallots, and a number of other host plants. Less numerous during the winter than in recent years.

Utah. G. F. Knowlton (March 4): Some silvering of market pod peas in Iron, Piute, Garfield, Washington, Sevier, and Beaver Counties in 1938, in some cases resulting in reductions in grade.

CRANE FLIES (Tipulidae)

Kentucky. W. A. Price (March 24): Large part of a lawn in the vicinity of Paris ruined by an undetermined species of leather jacket. Grass on either side of the ornamental hedge and in spots at other places in the yard completely destroyed by March 16. Some injured spots from 10 to 15 feet in diameter.

Louisiana. B. A. Osterberger (March 27): Very abundant in flight at Baton Rouge, East Baton Rouge Parish, on March 5.

Missouri. A. C. Burrill (March 11): Groups of dancing midges observed several times throughout the winter on sunny days or after showers at Jefferson City. One such group was determined not as midges but as small tipulids. Altogether too small to represent the large leather jackets.

CEREAL AND FORAGE - CROP INSECTS

WHEAT AND OTHER SMALL GRAINS

CHINCH BUG (Blissus leucopterus Say)

Indiana. C. Benton (March 18): Limited survey made from March 7 to 10 throughout south-central, southwestern, and western Indiana, indicates sufficient numbers present in parts of western Indiana to produce a spotted moderate-to-heavy infestation this spring, if weather conditions are favorable.

Illinois. W. P. Flint (March 27): Examinations made late in March indicate a very high winter survival.

Iowa. H. E. Jaques (March 22): Showing activity and apparently sufficiently abundant in southeastern Iowa to become a problem again this summer.

Missouri. L. Haseman (March 10): Winter favorable for chinch bugs. Heavy winter counts spotted throughout the State, except in the northwestern, west-central, and southwestern parts, and some trouble expected next summer if spring and summer are dry. (March 22): Recent surveys in central Missouri indicate almost 100-percent winter survival.

GREEN BUG (Toxoptera graminum Rond.)

Oklahoma. F. A. Fenton (March 24): Reported on wheat at Homestead, Blaine County, and on barley at Cleveland, Pawnee County.

C. F. Stiles (March 26): Some damage being done in Payne and adjacent counties. Some fields badly damaged.

Mexico. F. F. Cardenas (March 16): Wheat grown at Torreon, Coahuila, infested.

APHIDS (Aphididae)

South Carolina. J. G. Watts (March 24): Small grains at Blackville damaged slightly by aphids.

HESSIAN FLY (Phytophaga destructor Say)

Indiana and Illinois. C. Benton (March 18): Survey made of wheatfields in south-central, southwestern, and western Indiana and in adjacent counties in southeastern Illinois from March 7 to 10 to determine infestation by fall brood. Only a few seriously injured fields observed in the area, as was expected from the comparatively light summer infestation found in this area during the stubble survey last summer.

FALSE WIREWORMS (Eleodes spp.)

Kansas. H. R. Bryson (March 24): Reported as abundant at Minneola on March 12.

Oklahoma. F. A. Fenton (March 24): Reported at Shattuck, Ellis County, on wheat.

CORN

SEED-CORN BEETLE (Agonoderus lecontei Chaud.)

Missouri. L. Haseman (March 22): Countless thousands observed in flight on the afternoon of March 22 at Columbia.

Kansas. H. R. Bryson (March 24): Flight observed on March 12. Report of large numbers in flight received from Lebo.

ALFALFA

ALFALFA WEEVIL (Hypera postica Gyll.)

California. A. E. Michelbacher (March 21): Survey conducted in infested area of lowland middle California on March 14 and 15. In the San Joaquin Valley average number of larvae collected to 100 sweeps of the insect net for different fields ranged from 1 to 623. In general larval population slightly greater than that a year ago. At Pleasanton no larvae or adults were collected, while in the region adjacent to San Francisco Bay larval count ranged from 0 to 43. Extent of parasitization by Bathyplectes curculionis Thoms. based on rearing records as follows: For San Joaquin Valley for February 23, 12.3 percent of last-stage larvae; in region adjacent to San Francisco Bay, 96.5 percent of last-instar larvae collected on February 24. Rearing records for recent survey not available, but it is safe to say that parasitization about San Francisco Bay continues to be high.

PEA APHID (Macrosiphum pisi Kltb.)

Virginia. H. G. Walker and L. D. Anderson (March 25): Present but rather scarce in alfalfa fields at Norfolk. Very few collected on young peas on March 24.

Georgia. T. L. Bissell (March 22): None found on Austrian peas at Experiment, central Georgia.

Louisiana. C. O. Eddy (March 27): Arrival in numbers just observed, the first seen this year. Observed last year intermittently from November until late in spring.

Texas. R. K. Fletcher (March 22): What was believed to be pea aphid was observed on March 2 as seriously injuring English peas in San Saba County. Growers reported to have been unable to raise peas in the last several years.

BUGS (Hemiptera)

Arizona. W. A. Stevenson (March 11): The insect population remained low during the last week; however, several Hemiptera were collected on alfalfa and grain in Pima County. (March 25): Two individuals of Thyanta custator F. and one of Chlorochroa sayi Stal were taken on alfalfa at Sahuarita on March 22, and were the first pentatomids collected in the Santa Cruz Valley this season.

E. E. Russell (March 15): Owing to low temperatures in mid-November, pentatomids in Maricopa County were forced into winter quarters a month earlier than during the two preceding seasons. Examinations of hibernacula up to March 15 indicate the winter mortality rate to be 21.66 percent, approximately two-thirds greater than during either of the two preceding seasons, despite the fact that the common tachinid parasites Gymnosoma fuliginosa Desv. and Ocyptera euchenor Walk., are less prevalent than usual.

SOYBEAN

SILVER-SPOTTED SKIPPER (Epargyreus tityrus F.)

Maryland. T. L. Bissell (March 11): Pupae common in refuse in soybean field at Westover, southeastern Maryland, on December 25, 1938. (March 11): One adult just emerged.

KUDZU

CHAFF SCALE (Parlatoria pergandii Const.)

Alabama. J. M. Robinson (March 24): Reported from Ozark on March 1 as attacking kudzu. First record of such infestation in Alabama.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis F.)

Louisiana. E. K. Bynum (March 20): Number of live stages found in burned cane trash in replicated overwintering experiments averaged 300 per acre, as compared with 255 in similar plots in 1938. First live pupa found in the field on February 9, as in 1938, and several additional pupae found during the next 10 days.

B. A. Osterberger. (March 27): First pupa for this spring found at Baton Rouge, on March 7. Adults began to appear on March 20.

SUGARCANE WEEVIL (Anacetrinus subnudus Buch.)

Louisiana. J. W. Ingram and L. J. Charpentier (March 20): Found in fair numbers in sugarcane stubble throughout southern Louisiana. In a variety test field of second-year stubble at Houna, an average of 13 percent of eyes, or buds, found to have been killed by larvae and an additional fairly high percentage killed by red rot, which had gained entrance through weevil tunnels.

FRUIT INSECTS

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Michigan. R. Hutson (March 28): Two or three rather heavy infestations on peach at Sodus and Eau Claire, in Berrien County. This is rather unusual, as no one around the institution has seen this scale on peach in many years.

Georgia. O. I. Snapp (March 20): Temperatures during the winter at Fort Valley, central Georgia, not sufficiently low to kill scale. High percentage survived in unsprayed peach orchards. Infestation greater than that of an average year.

Mississippi. C. Lyle (March 24): Reports of injury received from Hinds, Lawrence, and Simpson Counties.

Illinois. W. P. Flint (March 27): Only about 30- to 35-percent winter mortality, a higher survival than normal.

Missouri. A. C. Burrill (December 11): Japanese pear trees are heavily infested at Jefferson City. Four attacked in 1936 and in 1938 two more suddenly attacked. Control measures have been used.

Oklahoma. F. A. Fenton (March 24): Found heavily infesting Photinia serrulata on March 7.

FLATHEADED APPLE TREE BORER (Chrysobothris femorata Oliv.)

Nebraska. M. H. Swenk (March 20): Continued damage to shade and fruit trees, especially in counties along the southern border of the State, from February 21 to March 20.

Oklahoma. F. A. Fenton (March 23): Reported at Broken Arrow, Tulsa County, on redbud.

TWIG PRUNER (Hypermallus villosus F.)

Missouri. L. Haseman (March 22): Unusually abundant throughout most of Missouri during the last few years. Repetition of damage which occurred in apple orchards last year feared. In central Missouri sapsuckers removed most of the overwintering pupae from tunnels in twigs that did not fall to the ground.

Oklahoma. F. A. Fenton (March 24): Reported at Roff, Pontotoc County.

APPLE TWIG BORER (Schistoceros hamatus F.)

Kansas. H. R. Bryson (March 24): Reported from Lyons on March 18.

ROUNDHEADED APPLE TREE BORER (Saperda candida F.)

Oklahoma. F. A. Fenton (March 24): Reported at Jay, Delaware County, on apple.

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

Alabama. J. M. Robinson (March 24): Reported as attacking fruit trees at Jasper on March 21.

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

Pennsylvania. H. E. Hodgkiss (March 24): Eggs very abundant on apples and peaches in the eastern half of the State. Not so abundant in the counties west of State College.

APPLE

CODLING MOTH (Carpocapsa pomonella L.)

New York. D. W. Hamilton (March 22): Winter temperatures at Poughkeepsie and vicinity moderate. Mortality of larvae low, only 12 percent of 219 larvae removed from burlap bands on trees on March 21 found dead. March temperatures lower than those of 1936. Present indications that spring moth emergence will begin nearer to normal and later than last year.

Michigan. R. Hutson (March 28): Codling moth seems to have come through the winter without undue mortality. Counts made at Paw Paw and Eau Claire indicate mortality of less than 10 percent.

Georgia. J. E. Webb, Jr. (March 23): Larvae just beginning to pupate in the Cornelia section.

Kentucky. W. A. Price (March 24): Winter mortality of larvae very low in orchards in both eastern and western Kentucky. Survival estimated at from 85 to 90 percent.

Illinois. W. P. Flint (March 27): Survival very high, although less than the normal number went into hibernation last fall.

Missouri. L. Hasenan (March 10): Winter rather favorable for larvae. In breeding-cage studies at Columbia some of rearing sticks show rather high mortality, attributed largely to general condition of larvae when taken last fall, rather than to the winter. Despite the facts that most of the State had a very light apple crop and a reduced control program last summer, there is a fair carry-over throughout west-central, northern, and southeastern Missouri. Carry-over light throughout central and south-western Missouri, owing to absence of fruit last year.

H. Baker (March 27): Examination at Saint Joseph indicates mortality of overwintering larvae very light. No pupae found. Larval populations above average in apple orchards that produced a crop in 1938.

Washington. M. A. Yothers and E. J. Newcomer (March 18): First half of March in Yakima Valley coldest for 7 years, therefore control measures will begin later than was anticipated at the end of February.

FRUIT TREE LEAF ROLLER (Cacoecia argyrospila Walk.)

Illinois. W. P. Flint (March 27): Indications that there will be a heavy outbreak throughout the apple-growing section of western Illinois. In many orchards from 10 to 40 egg masses per tree can be found, averaging about 80 eggs per mass.

Missouri. L. Haseman (March 10): Eastern apple-growing areas of Missouri, extending from Cape Girardeau to Hannibal and west along the Missouri River from St. Louis to Jefferson City, show greatest egg-packet count since 1905, individual trees in some orchards showing as high as 100 packets per tree, with the average over the area probably not exceeding 10 per tree. Orchards in the rest of the State only lightly infested last year and egg packets difficult to find. Some trouble expected in practically all orchards in the State this summer. Control measures being used only in the eastern part.

EASTERN TENT CATERPILLAR (Malacosoma americana F.)

New Jersey. M. D. Leonard (March 25): Many wild cherry trees in the Haddonfield section examined for egg masses but these apparently present in only moderate numbers, although several trees about 8 to 10 feet high had from 10 to 15 egg rings each. No eggs hatched.

North Carolina. W. A. Thomas (March 15): Eggs have been hatching in Chadbourn area for several days and small nests are appearing in many wild cherry trees. Hatching began slightly in advance of the appearance of the first foliage.

C. S. Brimley (March 28): First web of year seen on wild cherry at Raleigh on March 26.

Georgia. A. L. Brody (March 10): Considerable annoyance reported by home owners, owing to entrance of caterpillars into houses. Reports on March 5 and 10 of migration from nests in crotches of cherry trees. Cherry trees still dormant.

Florida. S. O. Hill (March 23): Nests present on wild cherry and crab apple in the vicinity of Monticello on March 9.

Mississippi. C. Lyle (March 24): Hatching eggs on apple twigs received from Enid on March 6.

APHIDS (Aphidae)

Pennsylvania. H. E. Hodgkiss (March 24): Eggs abundant on apple trees. Reported as more abundant than usual.

Virginia. A. M. Woodside (March 27): Eggs of rosy apple aphid (Anuraphis roseus Baker) began hatching at Staunton on March 24.

Michigan. R. Hutson (March 26): Aphid eggs are unusually abundant everywhere in apple orchards.

Kentucky. W. A. Price (March 24): Many apple grain aphids (Rhopalosiphum prunifoliae Fitch) had hatched on March 8 and were found crawling over apple buds. Rosy aphid eggs extremely abundant in many apple orchards. Still too early for hatching to occur, so no estimate of winter mortality is possible.

Mississippi. C. Lyle (March 24): Specimens of woolly apple aphid (Eriosoma lanigerum Hausm.) received from Vicksburg in February.

Missouri. L. Haseman (March 10): Despite a very severe infestation of rosy aphid over most of the State in 1938, overwintering eggs of aphids of all species on apple trees are extremely scarce. Probably fewer eggs throughout central Missouri this winter than for many years. (March 22): Recent rearings at Columbia show only apple-oat aphids (R. prunifoliae) on apple twigs forced in the laboratory.

PEACH

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Virginia. A. M. Woodside (March 27): Beetles observed beginning to enter peach orchards in the vicinity of Crozet today.

Georgia. O. I. Snapp (March 20): Adults began to appear on peach trees at Fort Valley, central Georgia, on March 6. Only 25 to 50 percent of fruit buds of Elberta trees were open when the first curculios were caught by jarring. Hiley peaches were from 50 to 75 percent in bloom and Early Rose just beginning to bloom when first curculios appeared from hibernation. By March 12, when Elbertas were in full bloom, curculios were appearing in numbers from hibernation, and by the time three-fourths of the petals had fallen (March 18) had reached the center of orchards in numbers, the first one arriving on March 16. Control measures were started in orchards of central Georgia by March 16. As the average was only 1.25 beetles for each jarring per tree, the general infestation is not believed to be heavier than that of an average year and examination of hibernating material during the winter may prove it to be lighter. Eggs had not started to form in bodies of females until March 11. Mature and immature eggs found in bodies of many females caught on March 15. Curculios still appearing from hibernation on March 18, although weather was cool and windy.

T. L. Bissell (March 22): One plum curculio jarred today from five trees at Experiment, central Georgia, the first insect of the season seen and the first jarring. First records of the season for last 4 years are as follows: March 25, 1935; April 6, 1936; April 26, 1937; March 24, 1938.

G. F. Moznette (March 23): First hibernating beetles caught today by jarring peach trees at Albany. Beetles might have appeared earlier except for prevailing cold weather the previous week, March 13 to 18. Beetles taken only on trees in outside rows, next to native growth.

J. E. Webb, Jr. (March 23): Fifteen peach trees in Elberta orchard in the Cornelia section were jarred on March 22 and 15 trees in another orchard on March 23, but no plum curculios were caught.

BETTER (Coleoptera)

Georgia. O. I. Snapp (March 6): First adults of Pantomorus godmani Crotch of the season captured on peach trees at Fort Valley.

J. E. Webb, Jr. (March 23): Among insects jarred from 15 Elberta trees in the Cornelia section on March 22, and 15 other trees on March 23, were P. godmani, Diabrotica duodecimpunctata F., and several species of ladybird beetles.

ORIENTAL FRUIT MOTH (Grapholitha molesta Busck)

Mississippi. C. Lyle (March 24): Injured peach twigs received from Jackson in December 1938 and from Columbia in January. Reports of injury received from Olive Branch in January and Van Vleet in February.

PEACH BORER (Conopia exitiosa Say)

Maryland. E. N. Cory (March 14): Attacking peach roots at Sykesville.

Georgia. C. S. Osborn (March 25): Specimen of borer collected at Poulan, Worth County. Said to be destroying a number of cherry-laurel trees (Prunus caroliniana). (Det. C. Heinrich as Conopia sp. exitiosa.)

Mississippi. C. Lyle (March 24): More than 24 reports of injury received between October 1938 and March 1939.

Kansas. H. R. Bryson (March 24): Reported from Coyville on March 16.

TARNISHED PLANT BUG (Lygus pratensis oblineatus Say)

Virginia. A. M. Woodside (March 27): Observed on peaches in small numbers today.

Georgia. J. E. Webb, Jr. (March 23): Jarred in some numbers from peach trees in Elberta orchard in the Cornelia section on March 22 and 23.

WHITE PEACH SCALE (Aulacaspis pentagona Targ.)

Mississippi. C. Lyle (March 24): Reported as causing injury to peach trees at Fayette in February.

BERRIES

RASPBERRY CANE BORER (Oberea bimaculata Oliv.)

Kansas. H. R. Bryson (March 24): Reported from Chetopa on March 12.

A CERAMBYCID (Ataxia crypta Say)

Alabama. J. M. Robinson (March 24): Dewberry and youngberry canes at Courtland reported as having galls on them formed by larvae.

GRAPE

GRAPE BERRY MOTH (Polychrosis viteana Clem.)

Ohio. G. A. Runner (March 23): Examinations of overwintering pupae during March in the Sandusky area showed a winter mortality of about 8 percent, as compared with 14 percent for April 1938, and 10 percent for March 1937.

PECAN

PECAN LEAF CASEBEARER (Acrobasis juglandis LeB.)

Georgia. G. F. Moznette (March 22): Immature overwintered larvae just beginning to leave hibernacula and starting to feed on developing buds of pecan at Albany.

PECAN NUT CASEBEARER (Acrobasis caryae Grote)

Florida. S. O. Hill (March 23): Opening pecan buds at Monticello found to be infested by overwintered larvae on March 13.

Oklahoma. F. A. Fenton (March 23): Reported at Fort Gibson, Muskogee County.

HICKORY SHUCK WORM (Laspeyresia caryana Fitch)

Georgia. G. F. Moznette (March 22): In the course of studies at Albany first larva pupated on February 10 and first moth emerged on March 4.

Florida. S. O. Hill (March 23): First adult emerged from caged material on February 20 at Monticello.

Mississippi. C. Lyle (March 24): Reported as having injured pecan nuts in Brookhaven, Cleveland, and Holly Springs last October and November.

PECAN CARPENTER WORM (Cossula magnifica Stkr.)

Mississippi. C. Lyle (March 24): Specimen received from Petal on March 9.
Report of injury received from McComb.

OBSOLETE SCALE (Chrysomphalus obscurus Comst.)

Mississippi. C. Lyle (March 24): Specimens received from Bolivar and De Soto Counties, where pecan and oak trees were infested.

CITRUS

MEXICAN FRUITFLY (Anastrepha ludens Loew)

Texas. P. A. Hoidale (February): The adult fruitfly population in the Rio Grande Valley, as revealed by trap catches, was higher in February than during any similar period in the history of this project. In January only 154 flies were trapped, but early in February trap catches rapidly mounted and by the close of the month 2,150 flies had been submitted for identification. Many of the females were gravid. Some oviposition evidently took place late in January as the first larval infestation was discovered on February 14. Before the month closed 18 properties were listed as being infested.

GREEN CITRUS APHID (Aphis spiraeicola Patch)

Florida. J. R. Watson (March 23): Very scarce on the spring flush of growth, probably owing to dry weather and the hard, nonsucculent nature of the foliage.

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Florida. J. R. Watson (March 23): Adults appearing in small numbers over the citrus belt.

Mississippi. C. Lyle (March 24): Specimens received with following information: Feeding on ligustrum at Bay Saint Louis and McComb; on Satsuma orange at Gulfport, Hattiesburg, and Richton; and on Cape-jasmine at Cary.

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

Mississippi. C. Lyle (March 24): Infested plants received from Terry last December and from Vicksburg this month.

CITRUS RUST MITE (Phyllocoptes oleivorus Ashm.)

Florida. J. R. Watson (March 23): Common on citrus.

CITRUS RED MITE (Paratetranychus citri McG.)

Florida. J. R. Watson (March 23): Purple mite becoming abundant on citrus.

SIX-SPOTTED MITE (Tetranychus sexmaculatus Riley)

Florida. J. R. Watson (March 23): Comparatively scarce on citrus.

FIG

FIG SCALE (Lepidosaphes ficus Sign.)

California. C. K. Fisher (March 4): First eggs deposited about March 4 at Fresno. Date of first oviposition in other years in the Fresno district has ranged from February 15 to March 20. Twice-stabbed ladybeetle (Chilocorus stigma Say) observed feeding on fig scale on Capri and Calmyrna fig trees, the first time this predator has been seen on fig trees. Present in moderate numbers on few trees observed and possibly of benefit in reducing the infestation.

T R U C K - C R O P I N S E C T S

VEGETABLE WEEVIL (Listroderes obliquus Klug)

South Carolina. W. C. Nettles (March): Apparently on the increase in the State.

Georgia. K. P. Conradi (March 2): Specimens found on January 25. Heavy damage to turnips at Thomasville.

Florida. F. S. Chamberlin (March 10): Abundant on truck crops in Gadsden County for several weeks. Several infestations in tobacco plant beds reported recently.

Mississippi. C. Lyle (March 24): Larvae received from Barlow, Vossburg, and West Point in January. Reports of injury to turnips and other garden plants received from Columbia, Howison, and Long Beach.

Louisiana. B. A. Osterberger (March 27): Larvae observed feeding on several flowers at Baton Rouge on February 8. Most serious injury to calendula.

CUCUMBER BEETLES (Diabrotica spp.)

South Carolina. J. G. Watts (March 24): D. duodecimpunctata F. and D. balteata Lec. observed in small numbers at Blackville on various weeds and small grains. No D. vittata F. observed.

Virginia. A. M. Woodside (March 27): The spotted cucumber beetle observed feeding today.

Georgia. O. I. Snapp (March 6): Spotted cucumber beetles numerous on peach trees at Fort Valley, central Georgia, by March 6.

T. L. Bissell (March 9): Adults of D. duodecimpunctata numerous on wild-plum blossoms, the first seen this season at Bishop, Oconee County, central Georgia.

Mississippi. C. Lyle (March 24): D. duodecimpunctata reported as injuring corn at Columbia in January and at Osyka in February, and as injuring water-melons at Crystal Springs in March.

Texas. M. J. Janes (March 22): D. duodecimpunctata observed on February 13 as causing light injury to lettuce in Galveston County. One or two specimens per head.

FLEA BEETLES (Halticinae)

Illinois. W. P. Flint (March 27): More than normal numbers taken in the usual hibernating quarters.

SEED-CORN MAGGOT (Hylemya cilicrura Rond.)

Virginia. H. G. Walker and L. D. Anderson (March 25): Adults rather abundant at Norfolk in fields containing decaying organic matter.

Mississippi. C. Lyle (March 24): Larvae, probably belonging to this species, received from Gulfport in March with injured butterbeans that had been planted.

MOLE CRICKETS (Gryllidae)

South Carolina. F. Sherman (March): Several inquiries from the eastern part of the State.

POTATO AND TOMATO

TOMATO PINWORM (Gnorimoschema lycopersicella Busck)

Florida. J. R. Watson (March 23): Unusually heavy infestation on tomatoes in Manatee County.

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

Alabama. J. M. Robinson (March 24): Taken at Auburn on March 21.

Louisiana. C. O. Eddy (March 27): Adults apparently doing more damage this year than usual. Many growers are using control measures.

A WEEVIL (Collabismodes cubae Boh.)

Florida. J. R. Watson (March 23): Previously sent in as a pest of peppers; specimens submitted with the statement that it was rather heavily infesting several hundred acres of tomatoes in Dade County, mining the stems as it does in peppers and doing severe damage by dwarfing the plants and fruit.

A MIRID (Engytatus geniculatus Reut.)

Georgia. T. L. Bissell (March 17): Tomato plants in a greenhouse at Experiment, central Georgia, attacked. Stems and branches near the tops of plants girdled, and a few plants stunted. Adults and nymphs of various sizes present. First noted on February 18. Not seen before by the grower in 8 years of experience. (Det. by H. H. Knight.)

POTATO APHID (Macrosiphum solanifolii Ashm.)

Delaware. M. D. Leonard (March 19): Earlier in March there was a fair infestation on a number of potted tomato plants in a greenhouse at Wilmington but by now parasites have almost cleaned it up.

TOMATO AND POTATO PSYLLID (Paratrioza cockerelli Sulc.)

Texas. F. L. Thomas and J. C. Gaines (March 22): Both nymphs and adults collected on tomatoes and beans at Weslaco, Hidalgo County, in the lower Rio Grande Valley, on March 1, the first time the insect has been reported in that immediate area.

BEANS

BEAN APHID (Aphis rumicis L.)

Delaware. M. D. Leonard (March 24): Present in moderate numbers on potted greenhouse bean plants at Wilmington during March.

BEAN LEAF ROLLER (Urbanus proteus L.)

Mississippi. C. Lyle (March 24): Specimens received in November 1938 from Gulfport with statement that they were on pole beans.

CABBAGE

IMPORTED CABBAGE WORM (Pieris rapae L.)

Virginia. H. G. Walker and L. D. Anderson (March 25): A few butterflies observed flying over fields of young cabbage at Norfolk but no eggs found. Very scarce at Norfolk, as well as cabbage looper (Autographa brassicae Riley) and the diamondback moth (Plutella maculipennis Curt.).

South Carolina. F. Sherman (March): First adult for the year noted at Clemson on March 9.

Missouri. A. C. Burrill (March 22): Adult observed at Jefferson City, visiting flowers of Scilla sibirica.

Oklahoma. F. A. Fenton (March 24): Cabbage worms noted at Indianola, Pittsburg County, and at Bixby, Tulsa County.

CABBAGE WEBWORM (Hellula undalis F.)

Mississippi. C. Lyle (March 24): Specimens received from Lucedale in November, with report that they were feeding on cabbage.

APHIDS (Aphidae)

Delaware. M. D. Leonard (March 24): Light infestation of Myzus persicae Sulz. during March on potted greenhouse cabbage plants at Wilmington.

Virginia. H. G. Walker and L. D. Anderson (March 25): Cabbage aphids rather scarce at Norfolk; not more than 4 percent of plants examined in any field found to be infested.

South Carolina. W. C. Nettles (March): Aphids, presumably Brevicoryne brassicae L., reported as infesting spring cabbage.

SQUASH

SQUASH BUG (Anasa tristis Deg.)

Utah. G. F. Knowlton (March 20): Reported as beginning to emerge from hibernation at Logan.

ASPARAGUS

ASPARAGUS BEETLE (Crioceris asparagi L.)

South Carolina. J. G. Watts (March 24): Some activity of adults in hibernation cages at Blackville on warm days throughout February and March. Some activity in the field by the middle of March.

CELERY

ONION THRIPS (Thrips tabaci Lind.)

Florida. J. R. Watson (March 23): Reported as very abundant on celery at Sanford, less so in Sarasota County.

SPINACH

GREEN PEACH APHID (Myzus persicae Sulz.)

Virginia. H. G. Walker and L. D. Anderson (March 25): Spinach aphids very abundant in many early spinach fields about March 1 at Norfolk. Infection with fungous disease killed a very high percentage, resulting in a scarcity of the pest.

STRAWBERRY

STRAWBERRY WEEVIL (Anthonomus signatus Say)

North Carolina. W. A. Thomas (March 6): Emergence from hibernation began in the

Chadbourn area on March 6. Soon abundant on buds of native host plants adjacent to strawberry fields. Only a single specimen observed feeding on pollen of open strawberry flowers. No eggs observed nor any evidence of cut buds.

STRAWBERRY CROWN BORER (Tyloderma fragariae Riley)

Kentucky. W. A. Price (March 24): Fully developed eggs found first on March 7, in dissected beetles from western Kentucky indicating that oviposition might be expected.

APHIDS (Aphidae)

Louisiana. B. A. Osterberger (March 27): Green aphid found on strawberry leaves at Hammond, Tangipahoa Parish, on January 23. Strawberry root aphid (Aphis forbesi Weed) numerous in some strawberry fields on January 23 at Hammond.

COMMON RED SPIDER (Tetranychus telarius L.)

Virginia. H. G. Walker and L. D. Anderson (March 25): Rather abundant in a great many strawberry fields at Norfolk during March.

Texas. M. J. Janes (February 20): Strawberry plantings in Galveston County are being killed out where control measures were not used.

TOBACCO

TOBACCO MOTH (Ephestia elutella Hbn.)

North Carolina. W. D. Reed and J. P. Vinzant (March 7): Larvae, about full grown, found alive in the center of small piles of scrap tobacco spread on land last fall at Reidsville. First record of larvae as overwintering on the farm outside of growers' pack houses.

TOBACCO FLEA BEETLE (Epitrix parvula F.)

Florida. F. S. Chamberlin (March 17): Infestations on tobacco plant beds very light in Gadsden County.

MIDGES (Diptera)

South Carolina. W. C. Nettles (March): Midge larvae, species undetermined, have done some damage in tobacco seed beds.

COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis Boh.)

Florida. C. S. Rude and L. C. Fife (February 11): Live weevils observed in old bolls on plants standing in fields of the Sea Island belt in Florida. (February 18): Live weevils found in cages in which heavily infested bolls were placed last October.

Mississippi. E. W. Dunnam and J. C. Clark (March 25): Reported from Bolivar County that eight live weevils were found in rubbish in a clearing of new ground.

Louisiana. R. C. Gaines and assistants (March 11): Two weevils taken on flight screens in Madison Parish for the week ended March 11. (March 18): No weevils taken on field flight screens during the week ended March 18. (March 25): Weevils taken on field flight screens in Madison Parish for the week ended March 25 totaled four, as compared with two in 1938 and one in 1937.

Texas. R. W. Moreland (March 4): A few weevils found clinging to sides of cages in Brazos County but no activity noticed, owing to unfavorable conditions. (March 11): Some weevil activity noticed in a few cages in Brazos and Burleson Counties on March 9 and 10. Found out of hibernation in other cages on other dates but no activity observed. (March 18): A few weevils found active in hibernation cages on March 13 and 14. No activity noticed since, as it has been too cool.

PINK BOLLWORM (Pectinophora gossypiella Saund.)

Texas. A. J. Chapman (March 18): Spring examinations of larvae installed in hibernation cages in Presidio County in October 1938 showed a negligible winter mortality. Examinations indicate that a large number of moths should emerge from this material.

COTTON FLEA HOPPER (Psallus seriatus Reut.)

Louisiana. C. O. Eddy (March 27): First emergence of nymphs from hibernation cages on March 27.

Texas. R. W. Moreland (March 18): First emergence in hibernation cages in Brazos and Burleson Counties reported on March 13.

R. K. Fletcher (March 22): First-instar nymphs found on March 21 on the primrose, Oenothera sp., at College Station.

TARNISHED PLANT BUG (Lygus pratensis oblineatus Say)

Louisiana. R. C. Gaines and assistants (March 11): Total of 39 tarnished plant bugs taken on flight screens in Madison Parish for the week ended March 11. (March 18): Thirty-six collected on flight screens for the week ended March 18. (March 25): L. pratensis taken on flight screens for the week ended March 25 totaled three, as compared with none in 1937 and 1938.

FOREST AND SHADE - TREE INSECTS

CANKERWORMS (Geometridae)

Ohio. T. H. Parks (March): Male moths flying and collected at light on March 4 and 5.

Illinois. W. P. Flint (March 27): A few adults of spring cankerworm (Paleacrita vernata Peck) observed in February. During the second half of March, particularly during the week of March 19-25, there was a very heavy movement of moths from winter hibernating quarters up the trees. Heavy flight of male moths noted, even in the extreme northern end of the State.

Missouri. A. C. Burrill (February 13): Moths, 30 or more, observed coming to night lights at windows in Jefferson City.

L. Haseman (March 10): First flight of male moths occurred late in February and up to March 10 only occasional specimens observed on warm evenings. A heavy infestation over a great deal of the State this spring is indicated. (March 22): Increasing numbers of male spring cankerworm moths on the wing during warm evenings at Columbia since the middle of March.

Iowa. H. E. Jaques (March 22): Spring cankerworm active since about March 10, exceedingly on the nights of March 19 and 20. In some places bands on trees were so completely covered with females that they were bridged over, necessitating renewal of bands from day to day. Average number of eggs in 123 females was 135 per insect. One elm had 123 females caught in the band.

Nebraska. M. H. Swenk (March 20): Male moths of spring cankerworm first noted flying abundantly about street lights in Lincoln, Lancaster County, during the night of March 13, indicating start of period of activity of this pest. Evident that the general outbreak, which began in 1931 after 11 years of practically no trouble and has steadily increased each year, will continue through the coming season. Inquiries as to control began on February 26, coming in from the area in east-central Nebraska where this pest was so injurious in 1938.

Kansas. H. R. Bryson (March 22): Moths quite active at lights during the last week. On March 12 many moths were collected on screens of dwellings.

Oklahoma. F. A. Fenton (March 24): Moths found very numerous on February 24 and by March 29 eggs had hatched and first-instar larvae were found on apple buds at the rate of three or more per bud.

BOBWIN TAIL MOTH (Nyemina phaeorrhoea Donov.)

New Hampshire. E. P. Felt (March 21): Winter nests reported as abundant in an orchard in the southern part of Hampton, individual trees having from 50 to more than 200 nests.

A WEEVIL (Dorytomus mucidus Say)

Oklahoma. F. A. Fenton (March 24): Reported at Perkins, Payne County.

OBSURE SCALE (Chrysomphalus obscurus Comst.)

Pennsylvania. E. P. Felt (March 21): Somewhat abundant on branches of horse-chestnut at Chester.

OAK

A GALL MIDGE (Callirhytis flavohirta Beutm.)

New York. E. P. Felt (March 21): Twigs of swamp white oak at Northport, Long Island, showed extreme infestation. Galls broadly oval, about 1/8 inch in diameter, and containing living maggots.

CARPENTER WORM (Prionoxystus robiniae Peck)

Massachusetts. E. P. Felt (March 21): Found in some numbers infesting an English oak at Orleans.

PINE

PINE NEEDLE SCALE (Chionaspis pinifoliae Fitch)

New Jersey. M. D. Leonard (March 25): Considerable infestation observed on needles of a large ornamental Norway pine in a garden at Haddonfield.

Maryland. E. N. Cory (February 28): Infestation on white pine observed at Baltimore.

BARK BEETLES (Ips spp.)

Mississippi. C. Lyle (March 24): Pine infested with I. avulsus Eich. and I. calligraphus Germ. received from Morton in November 1938 and from Laurel in February.

I N S E C T S A F F E C T I N G G R E E N H O U S E

A N D O R N A M E N T A L P L A N T S

COMMON RED SPIDER (Tetranychus telarius L.)

Mississippi. C. Lyle (March 24): Infested plants received from Coffeeville and McComb in November 1938 and from Magnolia in March. Plants injured were arborvitae, camellia, and pyracantha. Reports of injury received from Corinth, Inverness, and Meridian.

ARBORVITAE

ARBORVITAE APHID (Lachnus thujafilinus Del G.)

Oklahoma. F. A. Fenton (March 24): Observed near Stillwater as early as March 7.

AZALEA

AZALEA SCALE (Eriococcus azaleae Comst.)

Pennsylvania. E. P. Felt (March 21): Observed in some abundance on rhododendron at Glenolden.

Mississippi. C. Lyle (March 24): Infested Japanese azalea plants received from McComb and Natchez in March.

BAUHINIA

PYRIFORM SCALE (Protopulvinaria pyriformis Ckll.)

Florida. R. C. Althouse (February): Heavy infestation on mountain ebony (Bauhinia purpurea) at Saint Petersburg. (Det. by H. Morrison.)

CALENDULA

GREEN PEACH APHID (Myzus persicae Sulz.)

Delaware. M. D. Leonard (March 24): A light infestation present during March on a number of small potted calendula plants in a greenhouse at Wilmington.

CHRYSANTHEMUM

CHRYSANTHEMUM APHID (Macrosiphoniella sanborni Gill.)

Delaware. M. D. Leonard (March 24): Infestation on potted chrysanthemum plants at Wilmington gradually increasing during March. A good many aphids still present.

MELON APHID (Aphis gossypii Glov.)

New York. F. S. Blanton (February 15): Common on chrysanthemums in a greenhouse at Babylon, Long Island. Five adults and nymphs found on stems. (Det. by P. W. Mason.)

CORALTREE

A PYRALID (Terastia meticulosalis Guen.)

Mississippi. C. Lyle (March 24): Larvae, feeding on coraltree, received from southern Mississippi in October 1938. (Det. by C. Heinrich.)

DOGWOOD

DOGWOOD CLUB GALL (Mycodiplosis alternata Felt)

Delaware. E. P. Felt (March 21): Somewhat common in the region about Wilmington and well known farther north. Recent laboratory work has demonstrated the pest to be this insect rather than Lasioptera clavula Beutm., a gall midge associated in earlier years with this somewhat common deformity.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

Alabama. J. M. Robinson (March 24): Reported as attacking euonymus at Union Springs on March 18.

GLADIOLUS

GLADIOLUS THRIPS (Taeniothrips simplex Morison)

Florida. J. R. Watson (March 23): Moderate infestation in Manatee and Lee Counties.

HOLLY

HOLLY LEAF MINER (Phytomyza ilicis Curt.)

New Jersey. H. C. Donohoe (March 6): Holly in a cool greenhouse at Kingston severely attacked. Practically all mature leaves show infestation and plants rendered so unsightly as to be unsalable.

Delaware. E. P. Felt (March 21): Mines found in moderate numbers at Wilmington, some plants showing an appreciable infestation.

A CHERMID (Paurocephala ilicis Ashm.)

Mississippi. C. Lyle (March 24): Injured twigs of yaupon received from Gulfport in February.

JUNIPER AND CEDAR

DEODAR WEEVIL (Pissodes nemorensis Germ.)

Alabama. J. M. Robinson (March 24): Reported as attacking deodar at Aliceville on March 20.

JUNIPER SCALE (Diaspis carueli Targ.)

New Jersey. M. D. Leonard (March 26): A number of garden ornamental juniper plants examined at Haddonfield showed from light to sufficient infestation to affect many of the branches.

NASTURTIUM

APHIDS (Aphiidae)

Delaware. M. D. Leonard (March): A light infestation of Aphis rumicis L. on some greenhouse nasturtium plants at Wilmington. Damage negligible. Only a few left of a somewhat greater infestation of Myzus persicae Sulz., which recently increased to considerable numbers, causing appreciable wilting of the leaves.

PANSY

APHIDS (Aphiidae)

Louisiana. B. A. Osterberger (March 27): Very numerous on pansy plants at Baton Rouge on January 26.

PRIVET

OLIVE SCALE (Parlatoria oleae Colv.)

Maryland. E. N. Cory (March 11): Infestation on privet at Baltimore.

PUSSY WILLOW

BEAKED WILLOW GALL (Phytophaga rigidae O. S.)

Maryland. E. N. Cory (March 13): Pussy willow infested at Arnold.

ROSE

ROSE APHID (Macrosiphum rosae L.)

New Jersey. M. D. Leonard (March 25): Rose bushes at Haddonfield which were well infested throughout last season have no newly hatched aphids as yet.

Delaware. M. D. Leonard (March 19): The light infestation on rose in a greenhouse at Wilmington, reported on March 2, built up considerably but by now parasites have left relatively few live aphids.

Louisiana. B. A. Osterberger (March 27): Green aphids very numerous on rose bushes in the southern part of Louisiana.

TULIP

CHRYSANTHEMUM APHID (Macrosiphoniella sanborni Gill.)

New York. F. S. Blanton (February 15): Fifteen adults and nymphs found on foliage of tulips at Babylon, Long Island. Very abundant on tulips in some places in Babylon. (Det. by F. W. Mason.)

INSECTS ATTACKING MAN AND
DOMESTIC ANIMALS

MAN

ORIENTAL RAT FLEA (Xenopsylla cheopis Rothsch.)

Tennessee. F. C. Bishopp (March 29): Two specimens sent in on March 9 from Nashville where they were infesting rats in a grain store.

MOSQUITOES (Culicinae)

Florida. W. V. King (February): Larva of Anopheles atropos D. & K. identified on the Florida Keys, which represents the first record of this species in that locality. Larvae and adults of Culex bahamensis D. & K. identified from Key West, representing first record of its occurrence in the United States. Found breeding rather abundantly in brackish water.

Oregon. H. H. Stage (March 21): Several reports of Theobaldia incidens Thoms. received during the last week from Multnomah County. Found to be overwintered females.

California. P. Simmons (February 15): Mosquitoes, species unknown, were numerous and actively biting on February 13 on the Madera County side of the San Joaquin River at Mendota Dam. Weather warm with bright sun. Unexpectedly early date of activity for these insects.

SANDFLIES (Culicoides spp.)

Georgia. J. B. Hull (February 23): Some sandflies emerged at Savannah on a few unusually warm days in February. Not numerous enough to cause much annoyance.

Florida. J. B. Hull (February 23): Not numerous during the last month at Fort Pierce.

BROWN DOG TICK (Rhipicephalus sanguineus Latr.)

Michigan. E. I. McDaniel (March 23): Number of specimens submitted from the Detroit area. Received from time to time all winter from this district. (Det. by F. C. Bishopp.)

BLACK WIDOW SPIDER (Latrodectus mactans F.)

Nebraska. M. H. Swenk (March 20): Observed in outdoor cellars and house basements since March 1, especially in the area from Box Butte County south to Cheyenne County and southeast to Furnas County.

CLOVER MITE (Bryobia praetiosa Koch)

District of Columbia. F. C. Bishopp (March 23): Several reports received from residents of Washington in the last few days of the clover mite invading homes and apartments.

CATTLE

SCREWORM (Cochliomyia americana C. & F.)

Georgia. A. L. Brody (March): Cases after branding of cattle reported.
(February 5): Natural case found on a sheep at Valdosta. (March 7):
Case on cow found on a farm near Valdosta. (March 22): Found on a sheep
and a goat on March 13 and 16.

Florida. A. L. Brody (February 21): Report from Jasper County of an infestation on a hog.

Texas. O. G. Babcock (February 8): Infestation of a sheep found, the earliest seasonal infestation observed in the vicinity of Sonora in the last 17 years.

CATTLE GRUBS (Hypoderma spp.)

Georgia. A. L. Brody (November 28, 1936): Larvae, probably H. lineatum DeVill., just began to appear in the backs of young steers at Valdosta. Those removed were all in the second stage. (March 14): On January 4, 60 warbles, probably H. lineatum, removed from the back of a calf at Valdosta; 4 fully mature. On February 13 3 flies emerged in the laboratory.

Missouri. L. Haseman (March 22): Most ox warbles had matured by March 20 and left the backs of cattle, if not forcibly removed earlier or destroyed with treatments.

Texas. R. Melvin (March 21): Heel flies quite active the first week in March at Menard.

HORN FLY (Haematobia irritans L.)

Georgia. A. L. Brody (February 28): About 75 to 100 observed per steer at Valdosta.

Texas. R. Melvin (March 21): Cattle examined today harbored from 10 to 50 horn flies each.

STABLEFLY (Stonoxys calcitrans L.)

Georgia. A. L. Brody (March 3): Large numbers found emerging at Valdosta.

CATTLE BITING-LOUSE (Bovicola bovis L.)

South Carolina. W. C. Nettles (March): Some degree of infestation found on most cattle.

A BLOWFLY (Phornia sp.)

Georgia. A. L. Brody (March 1): Infestations of black blowfly reported as frequent from February 3 to 10 and on February 27.

HORSE

SUCKING HORSE LOUSE (Haematopinus asini L.)

North Dakota. J. A. Munro (March 16): Specimens recently sent in from Driscoll, Burleigh County; with the statement that they were abundant on a horse.

POULTRY

FOWL TICK (Argas miniatus Koch)

Oklahoma. F. A. Fenton (March 23): Blue bug reported at Ryan, Jefferson County, on chickens.

SHEEP

GULF COAST TICK (Amblyomma maculatum Koch)

Georgia. A. L. Brody (February 18): One partly engorged female found on ear of a sheep at Valdosta.

GOAT

GOAT LICE (Linognathus sp.)

Georgia. A. L. Brody (March 8): Kids at Experimental Farm at Valdosta heavily infested.

DEER

BOTS (Cephenomyia sp.)

Utah. G. F. Knowlton (March 20): Several deer, which have died near Logan recently, heavily infested. (Det. by D. G. Hall.)

HOUSEHOLD AND STORED-PRODUCTS INSECTS

TERMITES (Isoptera)

United States. R. A. St. George (March 24): Winged adults of Reticulitermes flavipes Koll. now reported as emerging in numbers in heated basements in Pennsylvania, Maryland, Washington, D. C., and Virginia. Adult specimens accompanied reports in many cases. (March 27): General emergence of R. flavipes observed during the last few days outdoors in Maryland, Washington, D. C., and Virginia.

New Jersey. M. D. Leonard (March 25): Considerable number of winged termites (R. flavipes) active within a porch at Haddonfield. First flight observed this season.

Maryland. E. N. Cory (March 13): Termites observed in a church at Baltimore.

North Carolina. R. J. Kowal (March 6): First reported swarm at Asheville on February 20.

Kentucky. W. A. Price (March 24): Swarms of termites observed in Lexington on March 8.

Missouri. L. Haseman (March 22): A few reports of early spring swarming of termites received from central and northeastern Missouri since March 1.

Kansas. H. R. Bryson (March 22): Termites observed as becoming active near the surface of the soil. Considerable swarming about March 12 and 13. Activity early, because of the soil's not being frozen to any extent. Reports received from Manhattan, Emmett, Belvidere, and Salina.

Oklahoma. F. A. Fenton (March 24): Reports of infestations, probably R. flavipes, received from Elk City, Beckham County; Shattuck, Ellis County; and Ponca City, Kay County. Last record of damage to trees; first two of infestations in houses.

Utah. G. F. Knowlton (March 11): Adults observed emerging and flying about at Logan today.

ANTS (Formicidae)

New Jersey. M. D. Leonard (March 25): Considerable swarm of a small black ant in flight around a small evergreen around noon today at Haddonfield.

Maryland. E. N. Cory (February 25): Prenolepis sp. observed at Upper Marlboro. (Det. by G. S. Langford.)

Mississippi. C. Lyle (March 24): Numerous complaints as to ants causing trouble in houses received from Clarke, Clay, Hinds, Lowndes, Noxubee, and Union Counties. Specimens of Argentine ant (Iridomyrmex humilis Mayr) received from Laurel, Starkville, and Utica. Camponotus caryae Fitch received from Laurel in January and from Jackson in February, with reports of considerable annoyance. Pharaoh's ant (Monomorium pharaonis L.) received from Greenville, Leland, University, and West Point, and reported as being troublesome.

Missouri. A. C. Burrill (March 23): Northern honey ant (Prenolepis imparis Say) observed at Jefferson City during January, February, and March. Tiniest black ant (Monomorium minimum Buckl.) observed on March 22 and 23.

Kansas. H. R. Bryson (March 22): Yellow ants (Lasius interjectus Mayr) reported as swarming out in basements in a few residences in Manhattan. Reports also received from Hiawatha and Copeland.

A WASP (Polistes pallipes Lep.)

Missouri. A. C. Burrill (March 11): First record of appearance at Jefferson City this spring.

HOUSE CENTIPEDE (Scutigera forceps Raf.)

Missouri. A. C. Burrill (February 19): Observed in a house at Jefferson City as attacking a large black cockroach.

BOXELDER BUG (Leptocoris trivittatus Say)

Maryland. E. N. Cory (March 14): Reported as being in a house at Hagerstown.

Michigan. R. Hutson (March 28): Reported as coming out of hibernation at Muskegon, Petawano, and Paw Paw.

Iowa. H. E. Jaques (March 22): Numerous complaints received as bugs come out of hibernation.

Kansas. H. R. Bryson (March 22): More abundant this spring than for several years. Large numbers observed in Manhattan near maple trees and on the southern sides of buildings.

Nebraska. M. H. Swenk (March 20): Spring activity began about March 13, since when complaints of annoyance have been received from Sarpy, Douglas, Burt, Cedar, Pierce, and Platte Counties.

Utah. G. F. Knowlton (March 13): Annoyance reported from Salt Lake, Ogden, and Logan during this last week of warmer weather.

G. F. Knowlton and F. C. Harmston (March 24): Active and scattering from winter hibernation quarters, adults in flight being frequently seen at Logan.

INDIAN MEAL MOTH (Ephestia cautella Walk.)

New Jersey. H. C. Donohoe (March 4): A single adult taken in a seed store at Trenton. Inquiry revealed that moths, presumably of this species, are abundant each spring about bags of seed corn.

POWDER POST BEETLES (Lyctus spp.)

Maryland. E. N. Cory (March 21): Reported as attacking flooring at Baltimore and Church Hill on February 28 and March 21.

Kansas. H. R. Bryson (March 22): Report received from Sterling stating that powder post beetles had been working in the top of a walnut dresser for several years. Also reported as attacking new oak flooring at Toronto on March 11.

Oklahoma. F. A. Fenton (March 24): Reported at Shawnee, Pottawatomie County, as working in slabs used in log cabins.

BEETLES (Coleoptera)

Maryland. E. N. Cory (March 6): Hylotrupes bajulus L. reported from houses in Daniels Park and Berwyn on March 6. Confused flour beetle (Tribolium confusum Duv.) reported as attacking feedstuff at Sparrows Point on March 25.

Mississippi. C. Lyle (March 24): The black carpet beetle (Attagenus piceus Oliv.) sent in from Gloster in November 1938 with information that it was feeding on feathers. Reports of injury to floors and walls of houses by death watch beetle (Xyletinus peltatus Harr.) received from Natchez in October 1938 and from Big Creek and Lexington in January.

MISCELLANEOUS ITEMS

Georgia. T. L. Bissell (March 22): Chrysomelids (Dibolia borealis Chevr.) active on narrow-leaved plantain at Experiment on February 26. Much evidence of feeding and many eggs. On March 22 no beetles were seen and no recent feeding evident. Larvae found in mines from one- to two-thirds grown. One luna moth (Tropaea luna L.) caught at light in Spalding County, central Georgia, on March 14.

Utah. G. F. Knowlton (March 20): Gelechiid larvae (Metzneria lappella L.) reported on March 14 as infesting burdock seeds at Ogden. (Det. by C. Heinrich.)

G. F. Knowlton and F. C. Harmston (March 24): Mourning-cloak butterflies (Hamadryas antiopa L.) observed in flight on several occasions recently.

VETCH BRUCHID (Bruchus brachialis Fahr.)

New Jersey. L. J. Bottimer (July 1938): Of some 7,000 mature seeds of Vicia villosa, collected at Haddon Heights on July 19, July 26-27, and August 4, 1937, approximately 42.4 percent produced adults of the vetch bruchid and 17.7 percent adult hymenopterous parasites. Remaining seeds not examined. European Bruchobius mayri Masi constituted 96, 95, and 85 percent, respectively, of the Hymenoptera reared from the three collections. Emergence of this species started before July 19 and was heaviest during the first week of August. Very few reared after August 15. Handling the seed on April 18, 1938, resulted in 2 more B. mayri emerging on April 22, 1938, having hibernated within the seeds. Eupelmus allnyi French reared in small numbers during August 1937 from bruchid-infested seeds of the second and third collections only. Bruchid egg parasite, Uscana semipenns Gir., first reared from eggs of B. brachialis during July 1937 at Haddon Heights. Again obtained at this locality the first week of July 1938. (Hymenoptera det. by A. B. Gahan.)

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